

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of creating a design for ~~designing~~ a programmable logic device comprising the steps of:
  - receiving a user-specified modification to a programmable logic device design that changes a number of components of at least one module of the programmable logic device design, wherein the programmable logic device design ~~[[that]]~~ has been floorplanned;
  - identifying modules of the programmable logic device design that have been changed by the modification, wherein each changed module comprises a number of components that is different from the number of components within the module prior to the user-specified modification;
  - floorplanning only the changed modules of the programmable logic device design without altering ~~thereby determining a placement solution that does not violate~~ boundaries of unchanged modules; and
  - placing and routing the programmable logic device design.
2. (Original) The method of claim 1, said floorplanning step further comprising:
  - selecting a shape from a set of shapes for each changed module; and
  - assigning each changed module a non-overlapping location on the programmable logic device according to the selected shape of each module.
3. (Original) The method of claim 2, further comprising generating shapes for each changed module.
4. (Original) The method of claim 2, said floorplanning step further comprising adjusting a boundary of one of the changed modules to accommodate at least one component of the module without violating a boundary of an unchanged module.
5. (Original) The method of claim 1, wherein the programmable logic device is a

field programmable gate array.

6. (Currently Amended) A method of creating a design for a programmable logic device comprising the steps of:

receiving a user-specified modification to a programmable logic device design that changes a number of components of at least one module of the programmable logic device design, wherein the programmable logic device design has been floorplanned. The method of claim 1, wherein the modification does not alter more than approximately 5 percent of components of the at least one [[a]] module;

identifying modules of the programmable logic device design that have been changed by the modification, wherein each changed module comprises a number of components that is different from the number of components within the module prior to the user-specified modification;

floorplanning only the changed modules of the programmable logic device design without altering boundaries of unchanged modules; and

placing and routing the programmable logic device design.

7. (Currently Amended) The method of claim [[1]] 6, wherein the modification does not alter more than approximately 10 percent of components of [[a]] the at least one module.

8. (Currently Amended) A system for creating a design for designing a programmable logic device comprising:

means for receiving a user specified modification to a programmable logic device design that changes a number of components of at least one module of the programmable logic device design, where the programmable logic device design that has been floorplanned, wherein the modification does not alter more than approximately 5 percent of components of the at least one module;

means for identifying modules of the programmable logic device design that have been changed by the modification, wherein each changed module comprises a number of components that is different from the number of components within the

module prior to the user-specified modification;

means for floorplanning only the changed modules of the programmable logic device design without altering thereby determining a placement solution that does not violate boundaries of unchanged modules; and

means for placing and routing the programmable logic device design.

9. (Original) The system of claim 8, said means for floorplanning further comprising:

means for selecting a shape from a set of shapes for each changed module;

and

means for assigning each changed module a non-overlapping location on the programmable logic device according to the selected shape of each module.

10. (Original) The system of claim 9, further comprising means for generating the set of shapes for the changed modules.

11. (Original) The system of claim 9, said means for floorplanning further comprising means for adjusting a boundary of one of the changed modules to accommodate at least one component of the module without violating a boundary of an unchanged module.

12. (Original) The system of claim 8, wherein the programmable logic device is a field programmable gate array.

Claim 13. (Cancelled)

14. (Currently Amended) The system of claim 8, wherein the modification does not alter more than approximately 10 percent of components of ~~[[a]]~~ the at least one module.

15. (Currently Amended) A machine readable storage, having stored thereon a

computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of:

receiving a user-specified modification to a programmable logic device design that changes a number of components of at least one module of the programmable logic device design, wherein the programmable logic device design [[that]] has been floorplanned;

identifying modules of the programmable logic device design that have been changed by the modification, wherein each changed module comprises a number of components that is different from the number of components within the module prior to the user-specified modification;

floorplanning only the changed modules of the programmable logic device design without altering ~~thereby determining a placement solution that does not violate~~ boundaries of unchanged modules; and

placing and routing the programmable logic device design.

16. (Original) The machine readable storage of claim 15, said floorplanning step further comprising:

selecting a shape from a set of shapes for each changed module; and

assigning each changed module a non-overlapping location on the programmable logic device according to the selected shape of each module.

17. (Original) The machine readable storage of claim 16, further comprising generating shapes for each changed module.

18. (Original) The machine readable storage of claim 16, said floorplanning step further comprising adjusting a boundary of one of the changed modules to accommodate at least one component of the module without violating a boundary of an unchanged module.

19. (Original) The machine readable storage of claim 15, wherein the programmable logic device is a field programmable gate array.

20. (Currently Amended) A machine readable storage, having stored thereon a computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of:

receiving a user-specified modification to a programmable logic device design that changes a number of components of at least one module of the programmable logic device design, wherein the programmable logic device design has been floorplanned. ~~The machine readable storage of claim 15,~~ wherein the modification does not alter more than approximately 5 percent of components of ~~[[a]]~~ the at least one module;

identifying modules of the programmable logic device design that have been changed by the modification, wherein each changed module comprises a number of components that is different from the number of components within the module prior to the user-specified modification;

floorplanning only the changed modules of the programmable logic device design without altering boundaries of unchanged modules; and

placing and routing the programmable logic device design.

21. (Currently Amended) The machine readable storage of claim ~~[[15]]~~ 20, wherein the modification does not alter more than approximately 10 percent of components of ~~[[a]]~~ the at least one module.